

## CHEMICAL SPECIALTIES, INC.

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# **MATERIAL SAFETY DATA SHEET**

**DATE ISSUED** 06/06 SECTION 1: PRODUCT IDENTIFICATION PRODUCT NAME: A-5000 WATER TREATMENT BIOCIDE DATE ISSUED: 05/26/94-REV. DOT HAZARDOUS CLASSIFICATION: 5.1, PGII DOT SHIPPING NAME: **OXIDIZING SUBSTANCES, SOLID, N.O.S.** DOT LABEL: **OXIDIZER** FORMULA: **MIXTURE** CHEMICAL FAMILY: **MIXTURE** SECTION 2: HAZARDOUS INGREDIENTS **APPROXIMATE** TWA/TLV **WEIGHT % BROMOCHLORO-5** 60.0 5-DIMETHYLHYDANOIN 0.2 MG/M3(LONZA (CAS #126-06-7) **INTERNAL STANDARD)** 1,3-DICHLORO-5 0.2 MG/M3 (OSHA-PEL) 5-DIMETHYLHDANTOIN 27.4 0.4 MG/M3 (OSHA-Stel) (CAS #118-52-5) 0.2 mg/m3 (ACGIH-TLV) 1,3-DICHLORO-5-ETHYL-10.6 5-METHYLHYDANTOIN 0.2 MG/M3 (LONZA (CAS #89415-87-2) INTERNAL STANDARD) SODIUM CHLORIDE 1 NONE ESTABLISHED (CAS #7647-14-5) SECTION 3: PHYSICAL/CHEMICAL PROPERTIES BOILING POINT: **NOT APPLICABLE MELTING POINT:** 120-148° SOLUBILITY IN WATER: 0.54 GRAM/100 GRAMS @25 ℃ VAPOR PRESSURE (mm Hg): NA **NOT KNOWN** VAPOR DENSITY (AIR = 1): pH: NΑ SPECIFIC GRAVITY(WATER=1): NOT APPLICABLE **NOT APPLICABLE** VISCOSITY: APPEARANCE/ODOR **BRIQUETTES EVAPORATION RATE (BUTYL ACETATE)** <1 **VERY SLIGHT PUNGENT** ODOR: PERCENT VOLATILE (BY VOLUME): < 0.5

SECTION 4 : FIRE AND	EXPLOSION HAZARD DATA	<b>L</b>			
FLASH POINT (METHOD USED):		>200°F			
AUTO IGNITION TEMPERATURE:		NOT KNOWN			
LOWER EXPLOSION LIMIT (%):		NOT APPLICABLE			
UPPER EXPLOSION LIMIT (%):		NOT APPLICABLE			
EXTINGUISHER MEDIA	A: FOAM	x			
	DRY CHEMICAL	X			
	ALCOHOL				
	WATER	X			
	CO2				
	OTHER				
SPECIAL FIRE FIGHTI	NG PROCEDURES				
TO MINIMIZE THE PRO	GRESSIVE GENERATION O	F NOXIOUS GASES, FLOOD BURNING MATERIAL WITH LARGE QUANTITIES OF WATER.			
MUST WEAR NIOSH/M	SHA APPROVED SELF-CON	TAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. COOL FIRE-EXPOSED			
CONTAINERS WITH W	ATER SPRAY.				
UNUSUAL FIRE AND EXPLOSION HAZARDS:		MATERIAL IS A STRONG OXIDIZER AND CORROSIVE.			
		MAY IGNITE COMBUSTIBLE MATERIALS AND MAY PRODUCE NOXIOUS GASES.			
		PRODUCTS OF COMBUSTION ARE TOXIC.			
AIRBORNE DUSTS OF	THIS PRODUCT IN AN ENC	LOSED SPACE AND IN THE PRESENCE OF AN IGNITION SOURCE MAY CONSTITUTE			
AN EXPLOSION HAZAI	RD. USE ADEQUATE EXPLO	SION-PROOF VENTILATION SYSTEMS TO CONTROL DUST AT THE SOURCE.			
AVOID GENERATING F	PRODUCT DUST NEAR SOU	RCES OF IGNITION, INCLUDING STATIC ELECTRICITY. USE SAFETY MEASURES			
IN ACCORDANCE WIT	H THE 1988 EDITION OF NE	PA 654 (STANDARD FOR THE PREVENTION OF DUST EXPLOSIONS IN THE			
	RMACEUTICAL AND PLAST				
OTTENNIONE, DTE, TTIA	TIMAGEO TIONE AND TENOT				
SECTION 5: HEALTH E	FFECTS INFORMATION				
ROUTES OF ENTRY:	SKIN CONTACT	X EYE CONTACT X			
	INHALATION	X INGESTION			
EFFECTS OF OVEREX DIRECT SKIN AND EYE		I SEVERE SKIN AND EYE IRRITATION. PROLONGED CONTACT MAY PRODUCE			
IRREVERSIBLE DAMA	GE. INHALATION OF HIGH O	ONCENTRATIONS CAN BE SEVERELY IRRITATING TO THE LUNG WITH			
POTENTIAL SYSTEMIC	C ABSORPTION AND TISSU	E DAMAGE. REPEATED SKIN EXPOSURE MAY INDUCE SENSITIZATION.			
OVEREVROOURE MAN	ACCRAVATE EVICTING OF	ANDITIONIO. NO EFFECTO INDICATED			
OVEREXPOSURE MAY	AGGRAVATE EXISTING CO	NDITIONS: NO EFFECTS INDICATED.			
EMERGENCY AND FIR	ST AID PROCEDURES:				
EYES: FLU	SH EYES WITH LARGE AMO	UNTS OF RUNNING WATER FOR AT LEAST 15 MINUTES.			
HOL	HOLD EYELID APART TO ENSURE RINSING OF THE ENTIRE SURFACE OF THE EYE AND LIDS WITH WATER.				
GET	IMEDIATE MEDICAL ATTENTION. IF PHYSICIAN NOT AVAILABLE, FLUSH FOR ADDITIONAL 15 MINUTES				
AND	THEN TRANSPORT VICTIM	TO MEDICAL CARE.			
SKIN: IMM	EDIATELY WIPE AWAY EXC	ESS MATERIAL WITH DRY CLOTH WHILE REMOVING CONTAMINATED CLOTHING			
AND	AND SHOES. UNDER SAFETY SHOWER, WASH AFFECTED AREAS THOROUGHLY WITH LARGE AMOUNTS OF				
WAT	ER, AND SOAP IF AVAILAB	LE, FOR AT LEAST 15 MINUTES. GET IMMEDIATE MEDICAL ATTENTION.			
DISC	DISCARD OR DECONTAMINATE CLOTHING AND SHOES.				

INHALATION:	REMOVE FROM AREA TO FRESH AIR. IF NOT BREATHING, CLEAR AIRWAY AND START ARTIFICIAL RESPIRATION.				
	IF VICTIM IS HAVING TROUBLE BREATHING, GIVE SUPPLEMENTAL OXYGEN, IF AVAILABLE. GET IMMEDIATE MEDICAL ATTENTION.				
INGESTION:	IF SWALLOWED, IMMEDIAITELY GIVE 3-4 GLASSES OF WATER. DO NOT INDUCE VOMITING.				
	IF VOMITING OCCURS, GIVE FLUIDS AGAIN. GET IMMEDIATE MEDICAL ATTENTION. HAVE PHYSICIAN				
	DETERMINE IF PATIENT'S CONDITION ALLOWS INDUCTION OF VOMITING OR EVACUATION OF STOMACH.				
	DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS OR CONVULSING PERSON.				
CHEMICAL LIST	ED AS CARCINOGEN BY:				
NATIONAL TOX	ICOLOGY PROGRAM: NO				
I.A.R.C. MONOG	RAPHS: NO				
OSHA	NO				
SECTION 6: RE	ACTIVITY INFORMATION				
STABLE	XUNSTABLE				
CONDITIONS TO	D AVOID: NONE KNOWN (DECOMPOSES AT 165 ℃)				
HAZARDOUS D	ECOMPOSITION PRODUCTS				
THERMAL DEC	OMPOSITION MAY PRODUCE TOXIC VAPORS/FUMES OF CHLORINE, BROMINE, ORGANIC MATERIALS				
AND OXIDES O	F CARBON AND NITROGEN.				
HAZARDOUS P	<u>DLYMERIZATION</u>				
MAY OCCUR	WILL NOT OCCUR X				
CONDITIONS TO	D AVOID: NONE KNOWN				
INCOMPATIBILI	TY (MATERIALS TO AVOID)				
WATER					
OTHER	X				
STRONG ACIDS	AND ALKALIS, HIGH STORAGE TEMPERATURES, MOISURE AND READILY OXIDIZABLE MATERIALS.				
SECTION 7: SPI	LL AND DISPOSAL INFORMATION				
STEPS TO BE T	AKEN IN CASE MATERIAL IS RELEASED OR SPILLED				
DANGER! OXID	ZING AND CORROSIVE MATERIAL. DUST EXPLOSION HAZARD. DO NOT GET IN EYES OR ON SKIN.				
DO NOT BREATH DUST. FOR SPILLS, WEAR APPROPRIAITE PROTECTIVE GEAR, AND RESPIRATORY PROTECTION.					
WHERE DUST MAY BE GENERATED, WEAR FULL FACE RESPIRATORY PROTECTION, AND REMOVE ALL SOURCES					
OF IGNITION. FOR LARGE SPILLS, OR WHEN SPILLED MATERIAL COMES IN CONTACT WITH WATER,					
SELF-CONTAIN	ED BREATHING APPARATUS IS PERFERRED.				
CAREFULLY SWEEP UP SPILLED MATERIALS (AVOID GENERATING DUST) AND PLCE IN AN APPROPRIATE CONTAINER					
FOR DISPOSAL. DO NOT CONTAMINATE WITH OXIDIZABLE MATERIALS. NEUTRALIZE ANY RESIDUE WITH DILUTE, ALKALINE					
SODIUM BISUL	SODIUM BISULFITE OR THIOSULFATE SOLUTION; ABSORB WITH SAND OR VERMICULITE AND PLACE IN A COMPATIBLE				
CONTAINER FO	R DISPOSAL. IF SPILLED MATERIAL IS WET, NEUTRALIZE AND PROCEED AS STATED ABOVE.				
MATERIAL IS T	DXIC TO FISH. DO NOT DISCHARGE INTO LAKES, STREAMS, PONDS OR PUBLIC WATER UNLESS IN ACCORDANCE				
WITH AN NPDE	S PERMIT.				

### WASTE DISPOSAL METHODS

DISPOSE OF IN COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS. INCINERATION IS THE PREFERRED METHOD. RELATIVELY SMALL QUANTITIES OF PRODUCT MAY BE NEUTRALIZED AS STATED ABOVE, AND IF IN ACCORDANCE WITH LOCAL LAWS AND OPERATORS OF THE LOCAL SEWERAGE TREATMENT PLANTS, THE NEUTRALIZED MATERIALS MAY BE DISCHARGED IN SEWER SYSTEMS.

SECTION 8: PERSONAL PROTECTION INFORMATION

### **VENTILATION TYPE**

IN PROCESSES WHERE DUST OR AIRBORNE PARTICULATES MAY BE GENERATED, PROPER VENTILATION MUST BE PROVIDED IN ACCORDANCE WITH GOOD VENTILATION PRACTICES.

### RESPIRATORY PROTECTION

IN PROCESSES WHERE DUST OR AIRBORNE PARTICULATES MAY BE GENERATED.A NIOSHA/MSHA JOINTLY
APPROVED RESPIRATOR IS ADVISED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.

### PROTECTIVE GLOVES

RUBBER OR NEOPRENE, TO PREVENT SKIN CONTACT.

#### **EYE PROTECTION**

WEAR CHEMICAL GOGGLES WHERE THERE IS A POTENTIAL FOR EYE CONTACT. USE SAFETY GLASSES WITH SIDE SHIELDS UNDER NORMAL USE CONDITIONS.

### OTHER PROTECTIVE EQUIPMENT

EYE WASH; SAFETY SHOWER; PROTECTIVE CLOTHING (LONG SLEEVES, COVERALLS OR OTHER AS APPROPRIATE), WHEN NEEDED, TO PREVENT SKIN CONTACT.

SECTION 9: STORAGE AND HANDLING

## PRECAUTIONS FOR STORAGE AND HANDLING:

DO NOT BREATH DUST. AVOID GENERATING DUST. STORE IN A COOL, DRY PLACE, ISOLATED FROM ALL ORGANIC MATERIAL.

PRODUCT IS A STRONG OXIDIZER AND IS CORROSIVE. AVOID HEAT AND DIRECT SUNLIGHT. DO NOT ALLOW PRODUCT

TO COME IN CONTACT WITH OXIDIZABLE MATERIAL. KEEP CONTAINER CLOSED.

SECTION 10: TOXICOLOGY INFORMATION

ORAL LD<sub>50</sub> (RAT): 468 mg/kg

EYE IRRITATION (RABBIT): SEVERE IRRITANT AND CORROSIVE

(PRODUCED TISSUE DISTRUCTION TO BOTH ABRADED AND UNABRADED SKIN-PRIMARY IRRITATION INDEX=110)

SKIN IRRITATION (RABBIT-DRAIZE TEST): CORROSIVE TO BOTH ABRADED AND UNABRADED SKIN.

SKIN CORROSIVE (RABBIT-US DOT TEST): NOT CORROSIVE

SEVERELY IRRITATING TO LUNG UPON INHALATION WITH POTENTIAL SYSTEMIC ABSORPTION AND TISSUE DAMAGE.

LC<sub>50</sub> (SHEEPHEAD MINNOW-96HOURS): 1.4 mg/L (AS BR<sub>2</sub>)
EC <sub>50</sub> (EASTERN OYSTERS-96 HOURS): 0.84 mg/L (AS BR<sub>2</sub>)

FOR 1,3-DICHLORO-5, 5-DIMETHYLHYDANTOIN:

SKIN SENSITIZATION (GUINEA PIG-BUEHLER TEST): SKIN SENSITIZER

SECTION 11: MISCELLANEOUS AND REGULATORY INFORMATION

**FEDERAL LEVEL REGULATIONS:** 

THIS IS AN EPA REGISTERED PESTICIDE (EPA REGISTRATION NO. 6836-115). THIS MATERIAL MAY ONLY BE USED IN THE EPA REGISTERED APPLICATION(S) STATED ON THE PRODUCT LABEL.

TOXIC SUBSTANCE CONTROL ACT (TSCA INVENTORY) STATUS:

FOUND ON U.S. EPA TSCA INVENTORY.

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION AND LIABILITY ACT OF 1980 REQUIRES NOTIFICATION
OF THE NATIONAL RESPONSE CENTER) (TELEPHONE 800-424-8802) IN THE EVENT OF A RELEASE OF QUANTITIES OF THE FOLLOWING
HAZARDOUS MATERIALS CONTAINED IN THIS PRODUCT, IF THE RELEASE IS EQUAL TO OR GREATER THAN THE REPORTABLE
QUANTITIES (RQ'S) LISTED IN 40 CFR 302.4:

CHEMICAL NAME CAS NUMBER TYPICAL MAXIMUM CONCENTRATION

NONE KNOWN

SARA TITLE III, SECTION 302/304 (SUPERFUND AMENDMENT AND REAUTHORIZATION ACT OF 1986)-THIS ACT REQUIRES EMERGENCY PLANNING, INCLUDING AGENCY NOTIFICATION, FOR POSSIBLE RELEASE OF THE FOLLOWING COMPONENTS OF THIS MATERIAL, BASED UPON THE THRESHOLD PLANNING QUANTITIES (TPQs) AND RELEASE REPORTABLE QUANTITIES (RQs) LISTED FOR THE COMPONENTS IN 40 CFR 355:

CHEMICAL NAME CAS NUMBER TYPICAL MAXIMUM CONCENTRATION

NONE KNOWN

SARA TITLE III SECTION 311/312-THIS ACT REQUIRES REPORTING UNDER THE COMMUNITY RIGHT-TO -KNOW PROVISION DUE TO THE INCLUSION OF THE FOLLOWING COMPONENTS OF THIS MATERIAL IN ONE OR MORE OF THE FIVE HAZARD CATEGORIES LISTED IN 40 CFR 370:

CHEMICAL NAME	<u>CAS NAME</u>	HAZARD *) CATEGORIES
BROMOCHLORO-5, 5-DIMETHYLHYI	DANTOIN 126-06-7	A,R
1, 3-DICHLORO-5, 5-DIMETHYLHYDA	ANTOIN 118-52-5	A,R
1, 3-DICHLORO-5-ETHYL-5-METHYH	YDANTOIN 89415-87-2	A,R

\*) THE FIVE HAZARD CATEGORIES ARE AS FOLLOWS: F=FIRE HAZARD; S=SUDDEN RELEASE OF PRESSURE;

R=REACTIVE; A=IMMEDIATE (ACUTE) HEALTH HAZARD; C=DELAYED (CHRONIC HEALTH HAZARD)

SARA TITLE III SECTION 313-THIS ACT REQUIRES SUBMISSION OF ANNUAL REPORTS OFF THE RELEASES OF THE FOLLOWING COMPONENTS OF THE MATERIAL IF THIS THRESHOLD REPORTING QUANTITIES AS LISTED IN 40 CFR 372, ARE MET OR EXCEEDED:

CHEMICAL NAME CAS NUMBER TYPICAL MAXIMUM CONCENTRATION

NONE KNOWN

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OF SAFETY PRECAUTIONS AND PROCEDURES.